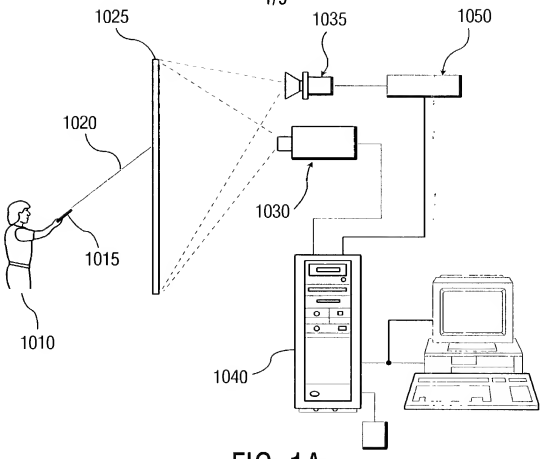
1025
1035
1050
1020
1030
1015
1010
1040

FIG. 1A

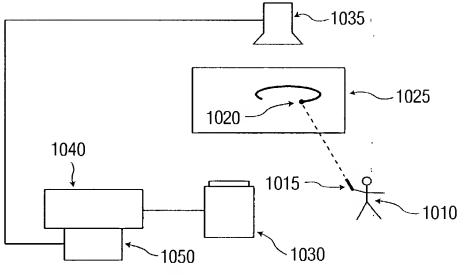
1035
1025
1020
1040
1015
1010
1050
1030

FIG. 1B

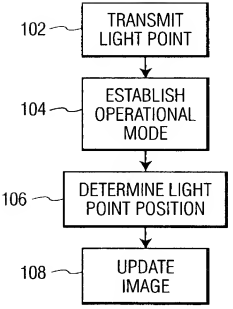
102
TRANSMIT LIGHT POINT
104
ESTABLISH OPERATIONAL MODE
106
DETERMINE LIGHT POINT POSITION
108
UPDATE IMAGE

FIG. 1C

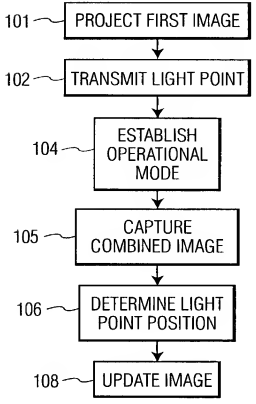
101
PROJECT FIRST IMAGE
102
TRANSMIT LIGHT POINT
104
ESTABLISH OPERATIONAL MODE
105
CAPTURE COMBINED IMAGE
106
DETERMINE LIGHT POINT POSITION
108
UPDATE IMAGE

FIG. 1D

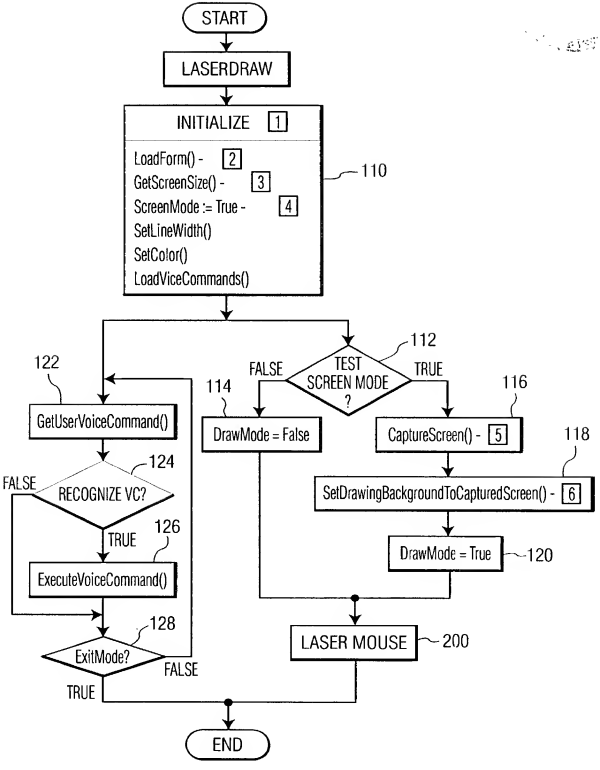
START
LASERDRAW
INITIALIZE 1
LoadForm() - 2
GetScreenSize() - 3
ScreenMode := True - 4
SetLineWidth()
SetColor()
LoadViceCommands()
110
112
TEST SCREEN MODE ?
FALSE
TRUE
122
GetUserVoiceCommand()
114
DrawMode = False
116
CaptureScreen() - 5
118
SetDrawingBackgroundToCapturedScreen() - 6
124
RECOGNIZE VC?
FALSE
TRUE
126
DrawMode = True
120
ExecuteVoiceCommand()
128
ExitMode?
FALSE
TRUE
LASER MOUSE
200
END

FIG. 1E

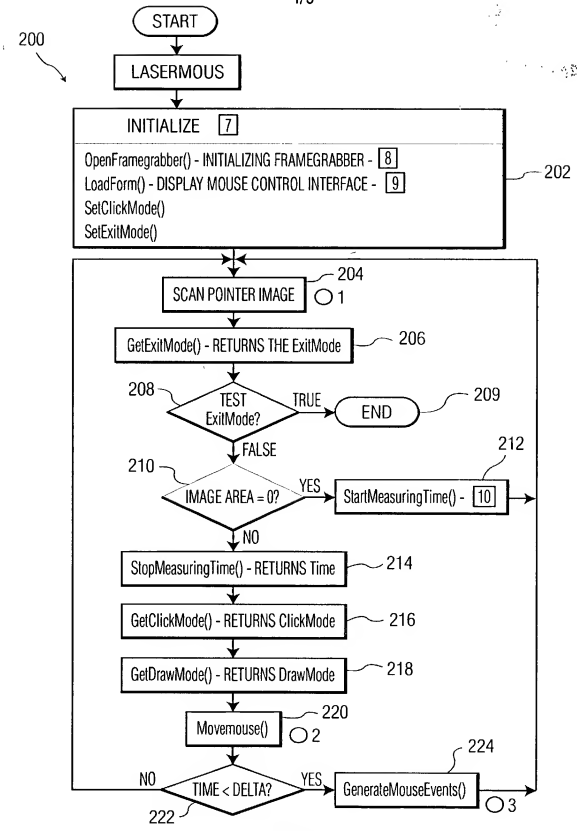
START
200
LASERMOUS
INITIALIZE 7
OpenFramegrabber() - INITIALIZING FRAMEGRABBER - 8
LoadForm() - DISPLAY MOUSE CONTROL INTERFACE - 9
SetClickMode()
SetExitMode()
202
SCAN POINTER IMAGE
204
1
GetExitMode() - RETURNS THE ExitMode
206
208
TEST ExitMode?
TRUE
END
209
FALSE
210
IMAGE AREA = 0?
YES
212
StartMeasuringTime() - 10
NO
StopMeasuringTime() - RETURNS Time
214
GetClickMode() - RETURNS ClickMode
216
GetDrawMode() - RETURNS DrawMode
218
Movemouse()
220
2
NO
TIME < DELTA?
222
YES
224
GenerateMouseEvents()
3

FIG. 2

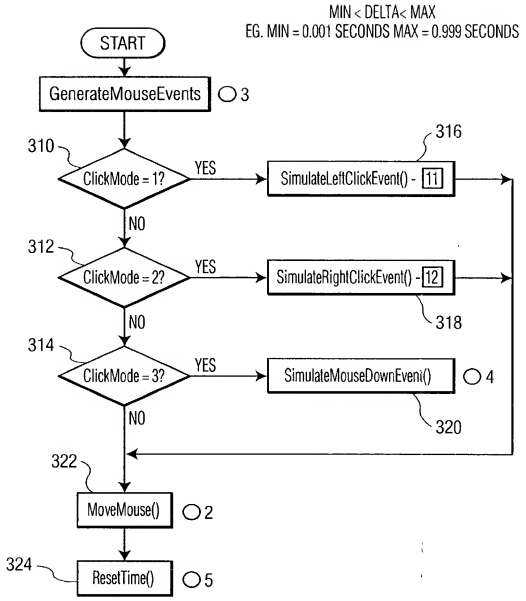
MIN < DELTA< MAX
EG. MIN = 0.001 SECONDS MAX = 0.999 SECONDS
START
GenerateMouseEvents
3
310
ClickMode = 1?
YES
316
SimulateLeftClickEvent() - 11
NO
312
ClickMode = 2?
YES
SimulateRightClickEvent() - 12
318
NO
314
ClickMode = 3?
YES
SimulateMouseDownEveni()
4
320
NO
322
MoveMouse()
2
324
ResetTime()
5

FIG. 3

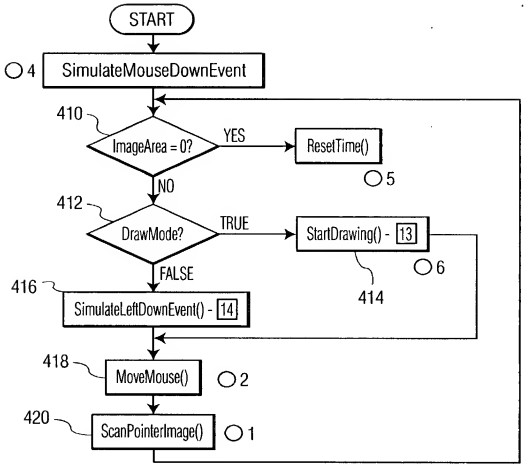
START
4
SimulateMouseDownEvent
410
ImageArea = 0?
YES
ResetTime()
5
NO
412
DrawMode?
TRUE
StartDrawing() - 13
6
414
FALSE
416
SimulateLeftDownEvent() - 14
418
MoveMouse()
2
420
ScanPointerImage()
1

FIG. 4

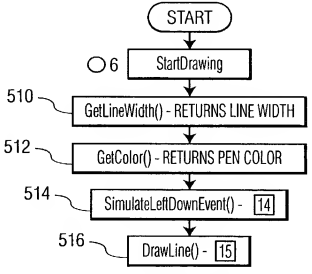
START
6
StartDrawing
510
GetLineWidth() - RETURNS LINE WIDTH
512
GetColor() - RETURNS PEN COLOR
514
SimulateLeftDownEvent() - 14
516
DrawLine() - 15

FIG. 5

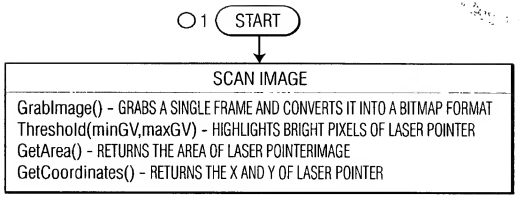

FIG. 6

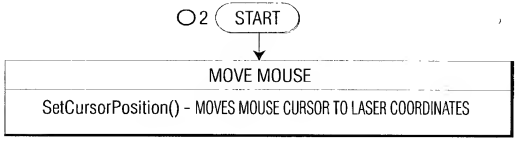

FIG. 7

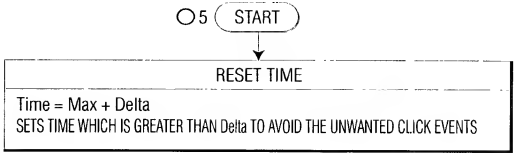

FIG. 8

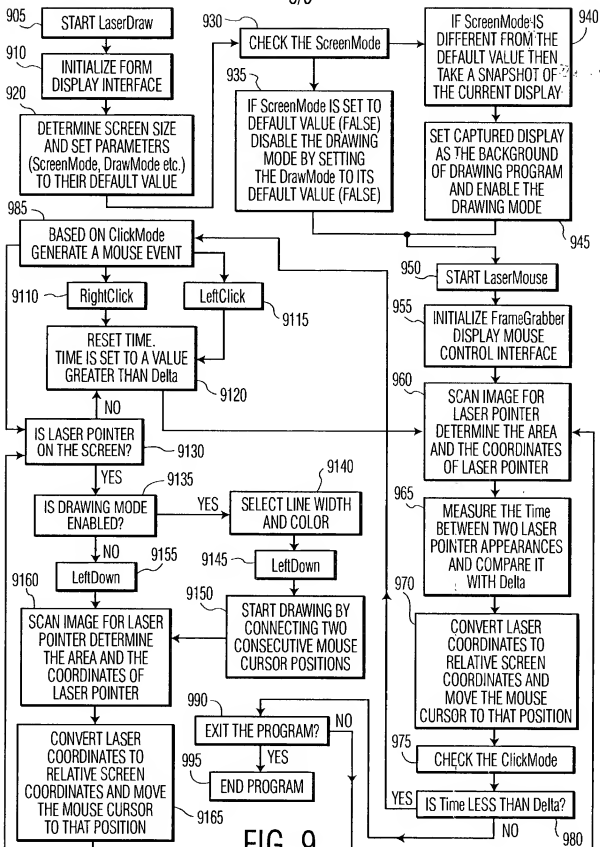
905
START LaserDraw
910
INITIALIZE FORM DISPLAY INTERFACE
920
DETERMINE SCREEN SIZE AND SET PARAMETERS (ScreenMode, DrawMode etc.) TO THEIR DEFAULT VALUE
930
CHECK THE ScreenMode
935
IF ScreenMode IS SET TO DEFAULT VALUE (FALSE) DISABLE THE DRAWING MODE BY SETTING THE DrawMode TO ITS DEFAULT VALUE (FALSE)
940
IF ScreenMode IS DIFFERENT FROM THE DEFAULT VALUE THEN TAKE A SNAPSHOT OF THE CURRENT DISPLAY
945
SET CAPTURED DISPLAY AS THE BACKGROUND OF DRAWING PROGRAM AND ENABLE THE DRAWING MODE
985
BASED ON ClickMode GENERATE A MOUSE EVENT
9110
RightClick
LeftClick
9115
RESET TIME. TIME IS SET TO A VALUE GREATER THAN Delta
9120
NO
IS LASER POINTER ON THE SCREEN?
9130
YES
9135
IS DRAWING MODE ENABLED?
YES
9140
SELECT LINE WIDTH AND COLOR
NO
9155
LeftDown
9145
LeftDown
9160
SCAN IMAGE FOR LASER POINTER DETERMINE THE AREA AND THE COORDINATES OF LASER POINTER
9150
START DRAWING BY CONNECTING TWO CONSECUTIVE MOUSE CURSOR POSITIONS
CONVERT LASER COORDINATES TO RELATIVE SCREEN COORDINATES AND MOVE THE MOUSE CURSOR TO THAT POSITION
9165
990
EXIT THE PROGRAM?
NO
995
YES
END PROGRAM
950
START LaserMouse
955
INITIALIZE FrameGrabber DISPLAY MOUSE CONTROL INTERFACE
960
SCAN IMAGE FOR LASER POINTER DETERMINE THE AREA AND THE COORDINATES OF LASER POINTER
965
MEASURE THE Time BETWEEN TWO LASER POINTER APPEARANCES AND COMPARE IT WITH Delta
970
CONVERT LASER COORDINATES TO RELATIVE SCREEN COORDINATES AND MOVE THE MOUSE CURSOR TO THAT POSITION
975
CHECK THE ClickMode
YES
IS Time LESS THAN Delta?
NO
980

FIG. 9

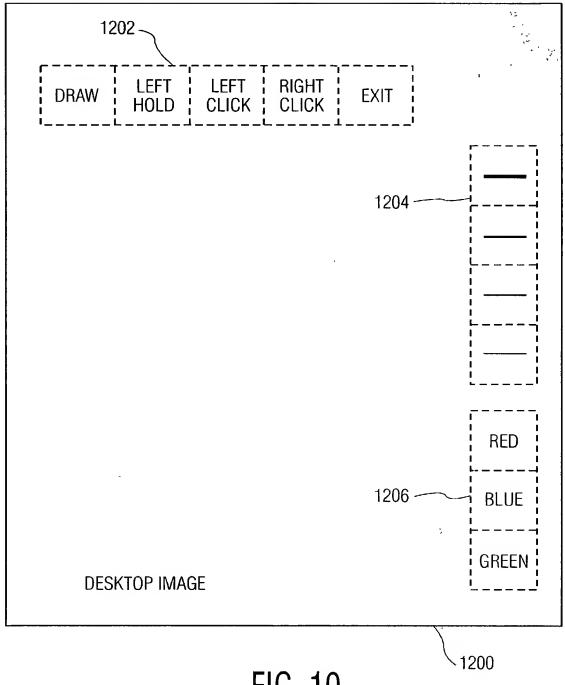
1202
DRAW
LEFT HOLD
LEFT CLICK
RIGHT CLICK
EXIT
1204
RED
1206
BLUE
GREEN
DESKTOP IMAGE
1200

FIG. 10